Biochemical Oxygen Demand (BOD) and Carbonaceous Biochemical Oxygen Demand (CBOD)
SM 21st 5210B **Page 1 of 2**

Facility Name:_____VELAP ID_____

Assessor Name:_____Analyst Name:_____Inspection Date_____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst:_____ Sample ID: _____ Date of Sample Preparation:_____ Date of Analysis:_____					
Are samples preserved at or below 4ºC until time of analysis?	5210B.4.a				
Are samples checked for residual chlorine, and if chlorine is present, are they dechlorinated using the appropriate amount of sodium sulfite (determined by titration as specified in method)?	5210B.4.b.2				
Are samples supersaturated with DO at 20ºC aerated or agitated to bring the DO between 7.0 and 9.0 mg/L?	5210B.4.b.4				
Are appropriate concentrations of phosphate buffer, MgSO4, CaCl2, and FeCl3 added to dilution water? (Buffer may be purchased in pre-made buffer pillows, or individual reagents made in the laboratory may be added to dilution water as specified in the method.)	5210B.3 and 5210B.5.a				
Are samples brought to 20 ± 3ºC before making dilutions?	5210B.5.b				
Is pH of all samples verified to be between 6.0 and 8.0, and if not, is pH adjusted to between 7.0 and 7.2 as specified in the method?	5210B.4.b				
Are at least three dilutions analyzed for each sample, to produce a residual DO of at least 1.0 mg/L and a DO uptake of at least 2.0 mg/L after 5-day incubation?	5210B.5.c				
Are samples mixed immediately before pipetting or pouring to avoid loss of solids by settling?	5210B.5.c.1				
Is seed added to all samples before final dilution, with stirring of the seed suspension performed during transfer?	5210B.5.d				
Is the appropriate amount of nitrification inhibitor added to CBOD samples and CBOD control seed bottles prior to filling?	5210B.5.e				
Notes/ Comments:					

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Are bottles sealed in a manner ensuring that no bubbles are trapped inside, and are the mouths of the bottles covered to prevent evaporation?	5210B.5.f				
Are bottles incubated in the dark at 20 ± 1ºC?	5210B.2.b				
Are three glucose-glutamic acid checks performed with each batch of samples, with an acceptable average range of 198 ± 30.5 mg/L?	5210B.6.b				
Are one or more dilution water blanks analyzed with each batch of samples, with a maximum acceptable value of 0.20 mg/L? (If blanks exceed 0.20 mg/L, the associated data are flagged or discarded.)	5210B.6.c				
Is a duplicate analyzed with each batch or on a 5 percent basis, whichever is more frequent?	1020B.7				
Are BOD seed controls analyzed using at least three dilutions of seed, with the smallest quantity of seed producing at least 2.0 mg/L DO depletion and the largest quantity producing at least 1.0 mg/L residual DO after 5 days of incubation?	5210B.6.d				
Are results calculated using only qualifying data which have a minimum DO depletion of 2.0 mg/L and a residual DO of a least 1.0 mg/L after 5 days of incubation?	5210B.6.a				
Are results calculated and reported according to the method?	5210B.7				
Notes/ Comments:					